

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
17 June 2004 (17.06.2004)

PCT

(10) International Publication Number  
**WO 2004/050773 A1**

(51) International Patent Classification<sup>7</sup>: C09C 1/42  
(21) International Application Number: PCT/US2003/035984  
(22) International Filing Date: 1 December 2003 (01.12.2003)  
(25) Filing Language: English  
(26) Publication Language: English  
(30) Priority Data: 60/430,087 2 December 2002 (02.12.2002) US  
(71) Applicant (*for all designated States except US*): IMERYS PIGMENTS, INC. [US/US]; 100 Mansell Court, Suite 300, Roswell, GA 30076 (US).

(72) Inventors; and  
(75) Inventors/Applicants (*for US only*): SARE, Edward, J. [US/US]; 161 Saddle Run Court, Macon, GA 31210 (US). ADKINS, Tommy, L. [US/US]; Route 5, Box 101, Cochran, GA 31014 (US). RAPER, Stephen, C. [US/US]; 292 Etowah Drive, Byron, GA 31088 (US).  
(74) Agents: GARRETT, Arthur, S. et al.; Finnegan, Henderson, Farabow, Garrett & Dunner, L.L.P., 1300 I Street, N.W., Washington, DC 20005-3315 (US).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (*regional*): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Published:**

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(54) Title: HIGH SOLIDS, LARGE PARTICLE, CALCINED KAOLIN SLURRIES

(57) **Abstract:** The present invention relates to coarse calcined kaolin slurries having a high solids content. The invention also relates to methods of making such slurries. The resulting slurries can have a solids content of at least about 58% by weight wherein at least about 40% by weight of the calcined kaolin particles has a particle size of at least about 1  $\mu$ m. The slurries can be stabilized where the solids show little settling from suspension. The slurries have many uses, including fillers or extenders in paint and coating compositions for paper or paper board. More generally, the inventive products may be used wherever calcined kaolins are used. The present invention also relates to coarse calcined kaolin slurries having a multimodal particle size distribution and a high solids content.

WO 2004/050773 A1